



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,462	08/26/2003	Craig Iannazzi	86390NAB	5375

7590 06/01/2005

Milton S. Sales
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
----------	--------------

2861

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,462

Applicant(s)

IANNAZZI, CRAIG

Examiner

Hai C. Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/26/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim **12** is objected to because of the following informalities:
 - Line 1, "method of claim 12" should read --method of claim 11--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morton (U.S. 5,966,506) in view of Nakane et al. (U.S. 5,461,462).

Morton discloses a method for calibrating a printing system comprising imaging a test pattern, e.g., test patterns as shown in Figs. 6 and 9, which comprises a set of densities based on a plurality of exposures (imaging test patterns at various exposure levels and density ranges), computing a first density point (E1) (Fig. 5) and second density point (E2) of the dataset to form an array of exposures versus a density between the first and the second points, forming a polynomial calibration curve (501) from the array of exposures (E) and density array (D), and calibrating an adjustable density printing system using the polynomial calibration curve (col. 5, lines 30-62).

Morton fails to teach repeating the imaging of the test pattern when an outlier data exists.

Nakane et al. discloses an image forming apparatus comprising a control device for adjusting the gradation data, which prints first a test pattern, then discriminates whether or not the calculated high density and low density are within the predetermined range values so as to repeat the printing of the test pattern (col. 14, line 4-43).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to repeat the process of printing the test pattern in the device of Morton until the calculated density values are within the standard range as taught by Nakane et al. the motivation for doing so would have been to accurately match the range of the test pattern with the predetermined standard range.

Morton further teaches:

- the first and the second density points being a toe and shoulder density points, respectively, with the second density point corresponding to a maximum density D_{max} (col. 8, lines 4-22),
- calculating for a threshold of the density data to obtain the toe density point (col. 8, lines 47-56),
- the test pattern comprising multiple colors,
- the printing system includes a variety of printing types, e.g., laser printer, ink jet printer, and using a spectrometer, e.g., microdensitometry (1005),
- computing a first slope (curve 501) and a second slope (curve 502) based on the polynomial calibration curve,

- the first and second slopes being adapting to be used for extreme density ranges (col. 7, lines 14-23).

Allowable Subject Matter

4. Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of the allowability of claim 17 is the inclusion therein, in combination as currently claimed, of the limitation of “subtracting paper density from the dataset enabling the calibration curve to be insensitive to the type of paper stock used in the printing system”, which is not found taught by the prior art of record considered alone or in combination.


The primary reason for the indication of the allowability of claim 18 is the inclusion therein, in combination as currently claimed, of the limitation “wherein the test pattern comprises an independent row for each set of densities and at least four points within a row comprise only paper density”, which is not found taught by the prior art of record considered alone or in combination.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER

May 27, 2005